This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claims 1-5 (canceled).

Claim 6 (new): An antenna structure having a substantially flat form with a ground connection, which is designed for use for at least two frequency bands, comprising: two antenna branches, which are electrically conductively connected to a foot area, wherein the foot area surrounds the ground connection;

two RF supply connections that are arranged at a distance from one another, provided in the foot area, between which the ground connection is provided, wherein the two antenna branches of the antenna structure are designed such that their associated frequency bands overlap; and

an excitation circuit with an RF supply line, which branches to the two RF spply connections.

Claim 7 (new): The antenna structure as claimed in claim 6, wherein the antenna structure is a planar, inverted F structure.

Claim 8 (new): The antenna structure as claimed in claim 6, wherein the two antenna branches of the antenna structure are each designed in a meandering shape.

Claim 9 (new): The antenna structure as claimed in claim 8, wherein the two antenna branches are in the form of a double meander.

Claim 10 (new): The antenna structure as claimed in claim 8, wherein the distance between the two meandering antenna branches is in the range between 0.5 and 10 mm.